US5901188

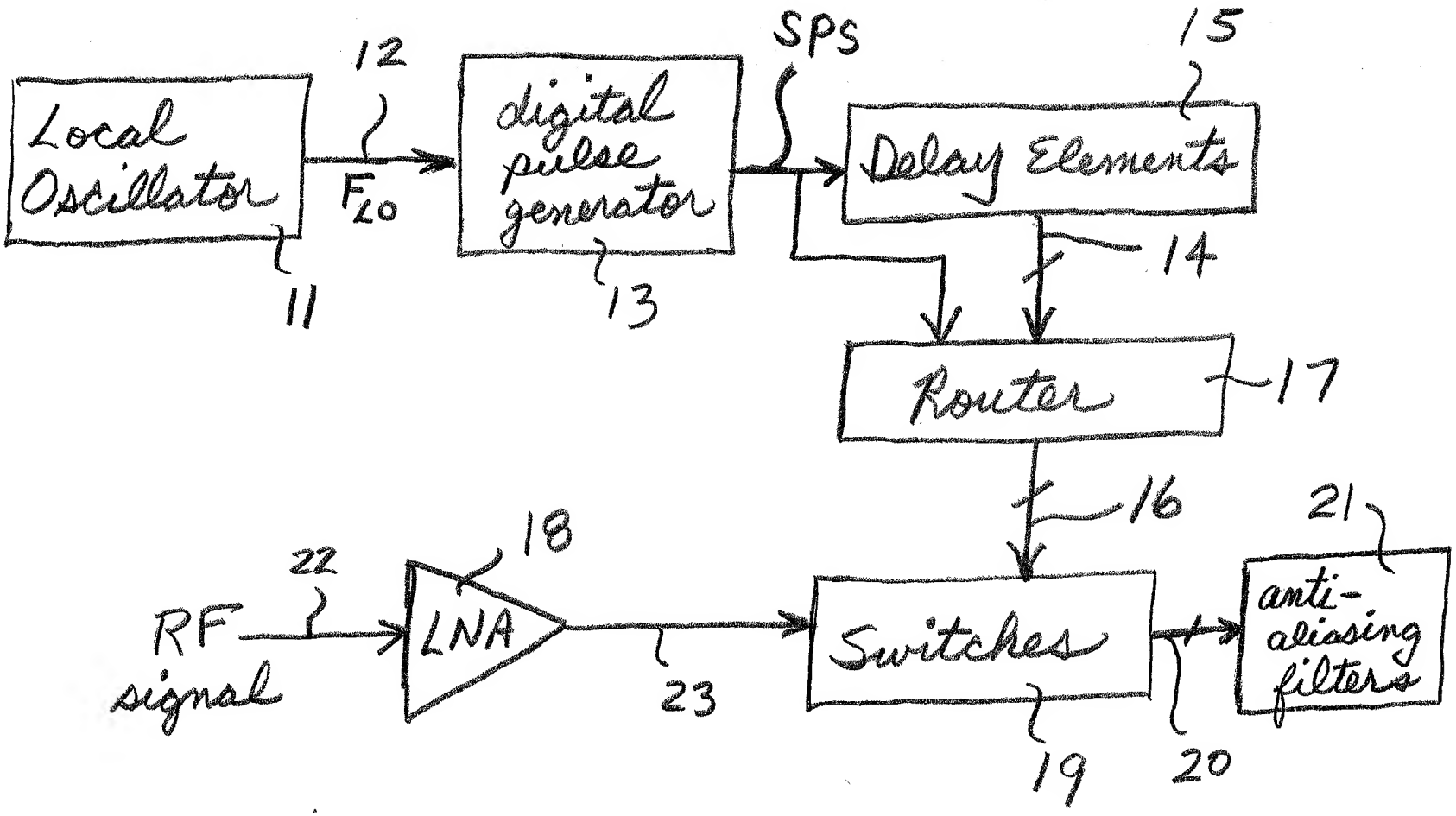


FIG. 1

TOSHIBA BEE82360

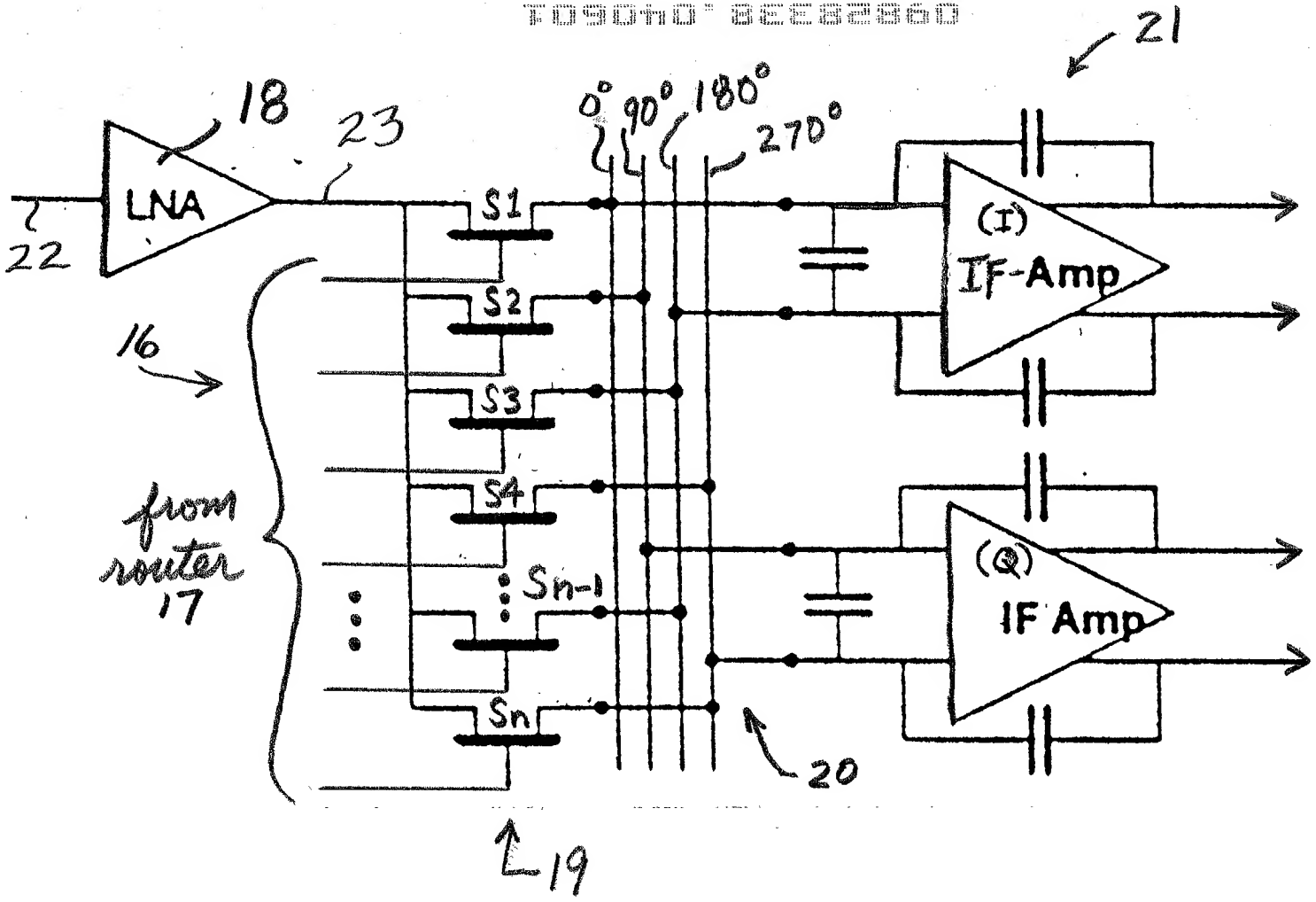


FIG. 2

TOSHIBA BEE82860

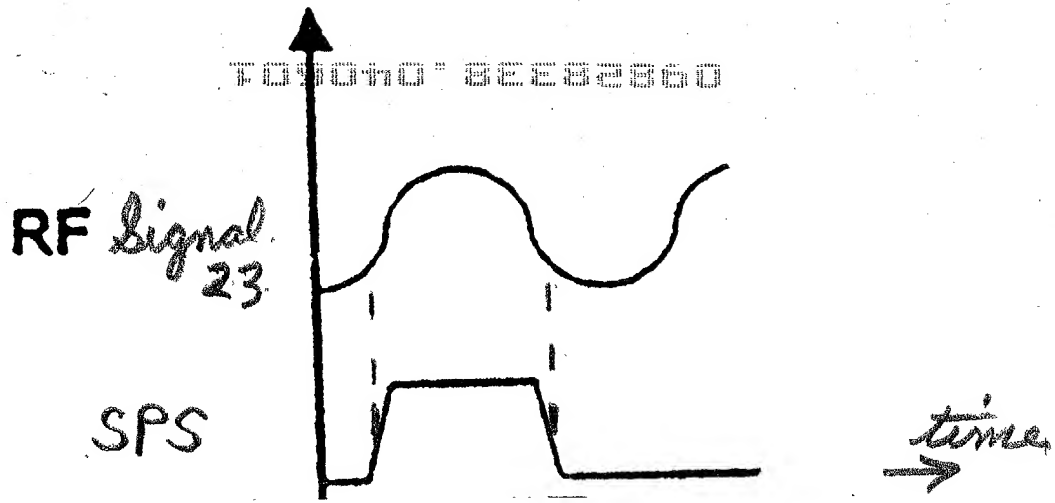
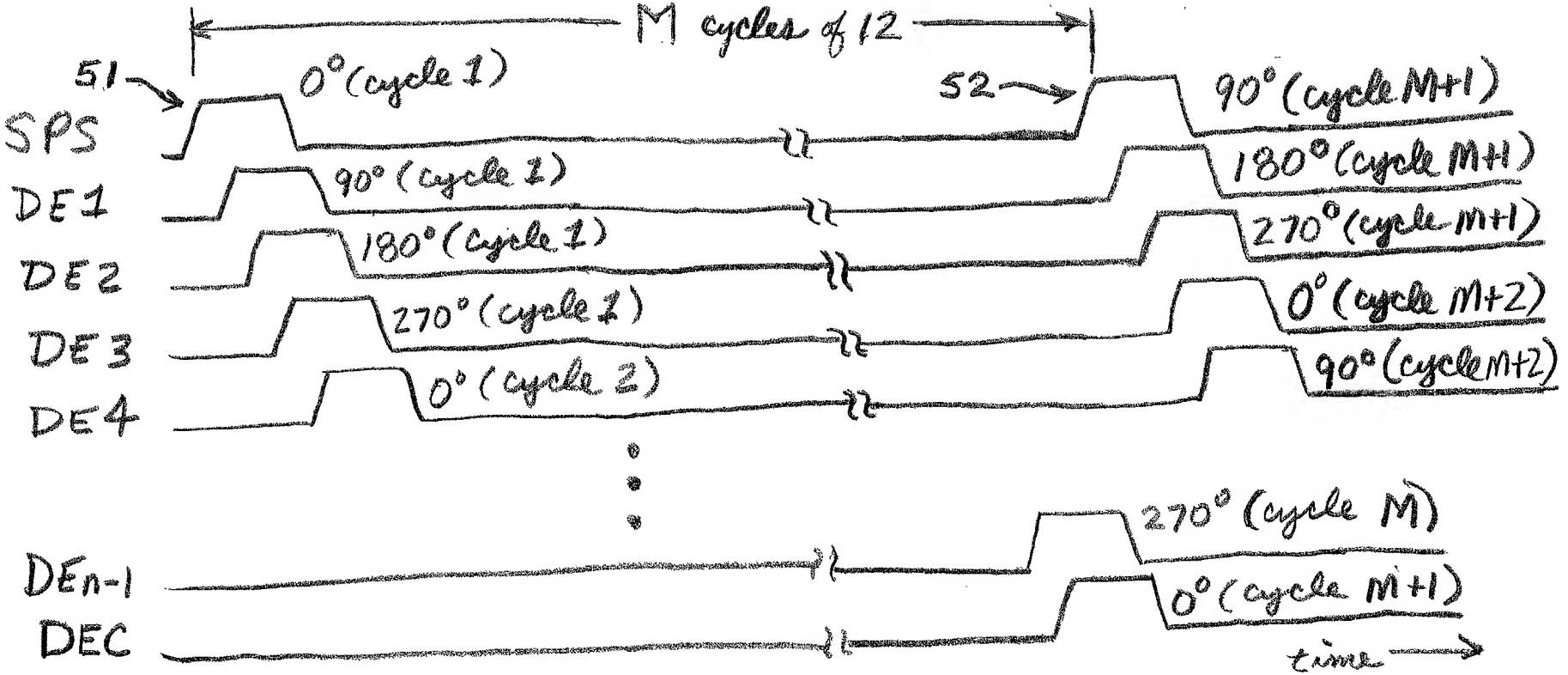


FIG. 3

FIG. 5



EP 0 914 618 B1 EP 98 952 860

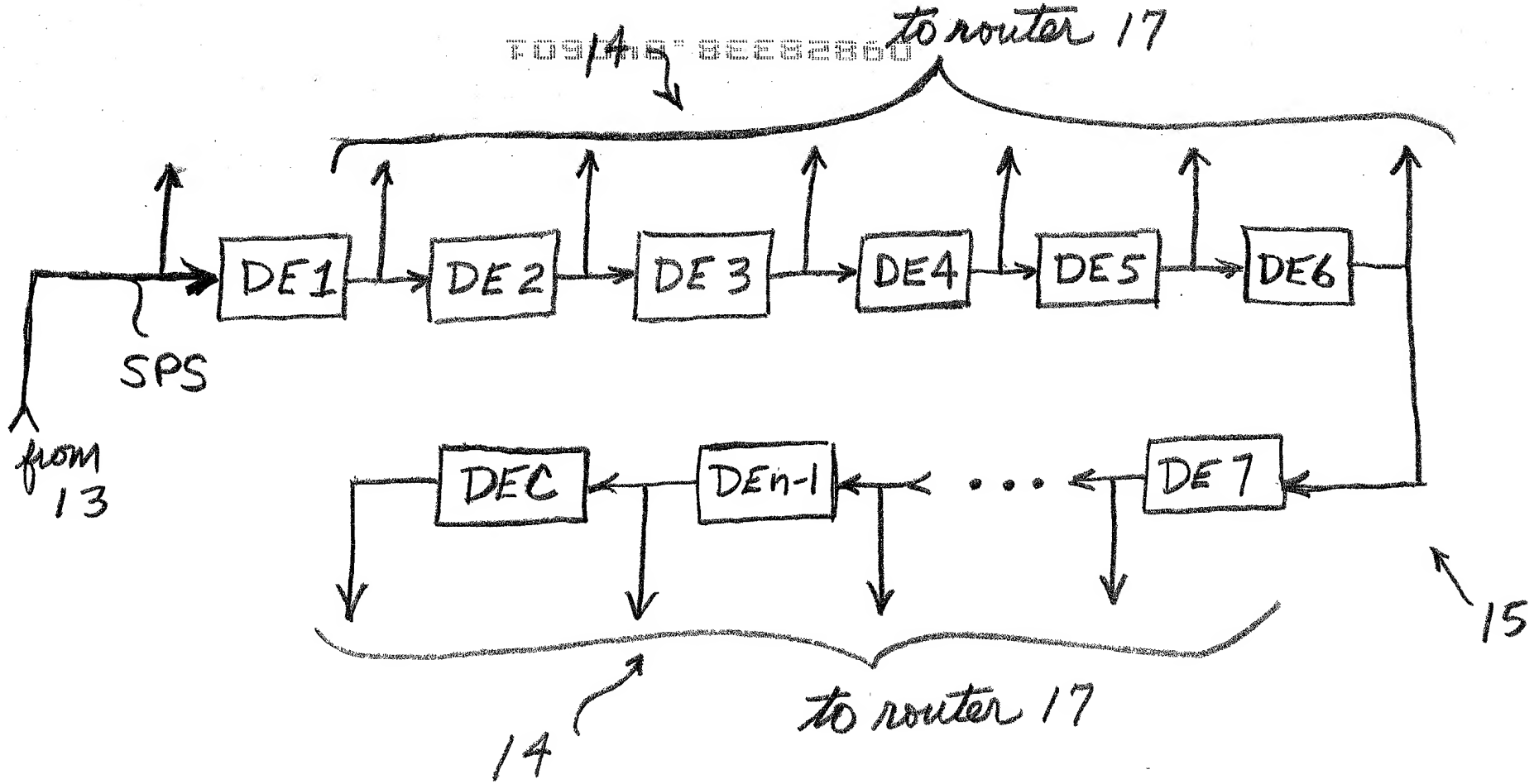


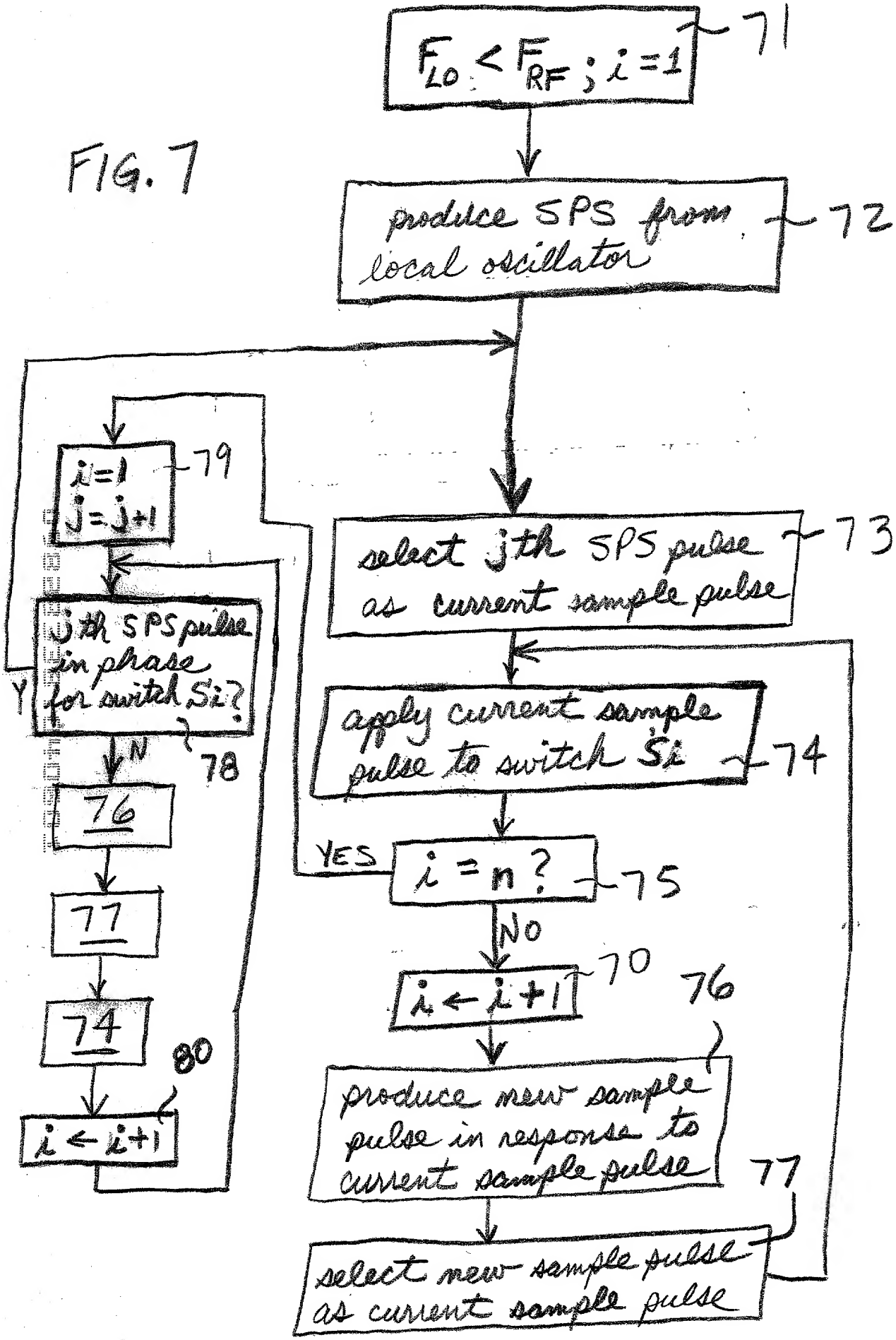
FIG. 4

SWITCH (PHASE)	RF cycle	Pulse source	RF cycle	Pulse source	RF cycle	Pulse source	RF cycle	Pulse source
S1 (0)	K	SPS	K+4	DEC	K+8	DE15	K+12	DE14
S2 (90)		DE1		SPS		DEC		DE15
S3 (180)		DE2		DE1		SPS		DEC
S4 (270)		DE3		DE2		DE1		SPS
S5 (0)	K+1	DE4	K+5	DE3	K+9	DE2	K+13	DE1
S6 (90)		DE5		DE4		DE3		DE2
S7 (180)		DE6		DE5		DE4		DE3
S8 (270)		DE7		DE6		DE5		DE4
S9 (0)	K+2	DE8	K+6	DE7	K+10	DE6	K+14	DE5
S10 (90)		DE9		DE8		DE7		DE6
S11 (180)		DE10		DE9		DE8		DE7
S12 (270)		DE11		DE10		DE9		DE8
S13 (0)	K+3	DE12	K+7	DE11	K+11	DE10	K+15	DE9
S14 (90)		DE13		DE12		DE11		DE10
S15 (180)		DE14		DE13		DE12		DE11
S16 (270)		DE15		DE14		DE13		DE12
	--> to K+4		--> to K+8		--> to K+12			

FIG. 6

to cycle K ← K=K+16

FIG. 7


$F_{LO} < F_{RF}$; $i = 1$
71
produce SPS from local oscillator
72
select jth SPS pulse as current sample pulse
73
apply current sample pulse to switch Si
74
i = n ?
75
YES
NO
i ← i+1
70
produce new sample pulse in response to current sample pulse
76
77
select new sample pulse as current sample pulse
i = 1
j = j+1
79
jth SPS pulse in phase for switch Si?
78
Y
N
76
77
74
80
i ← i+1

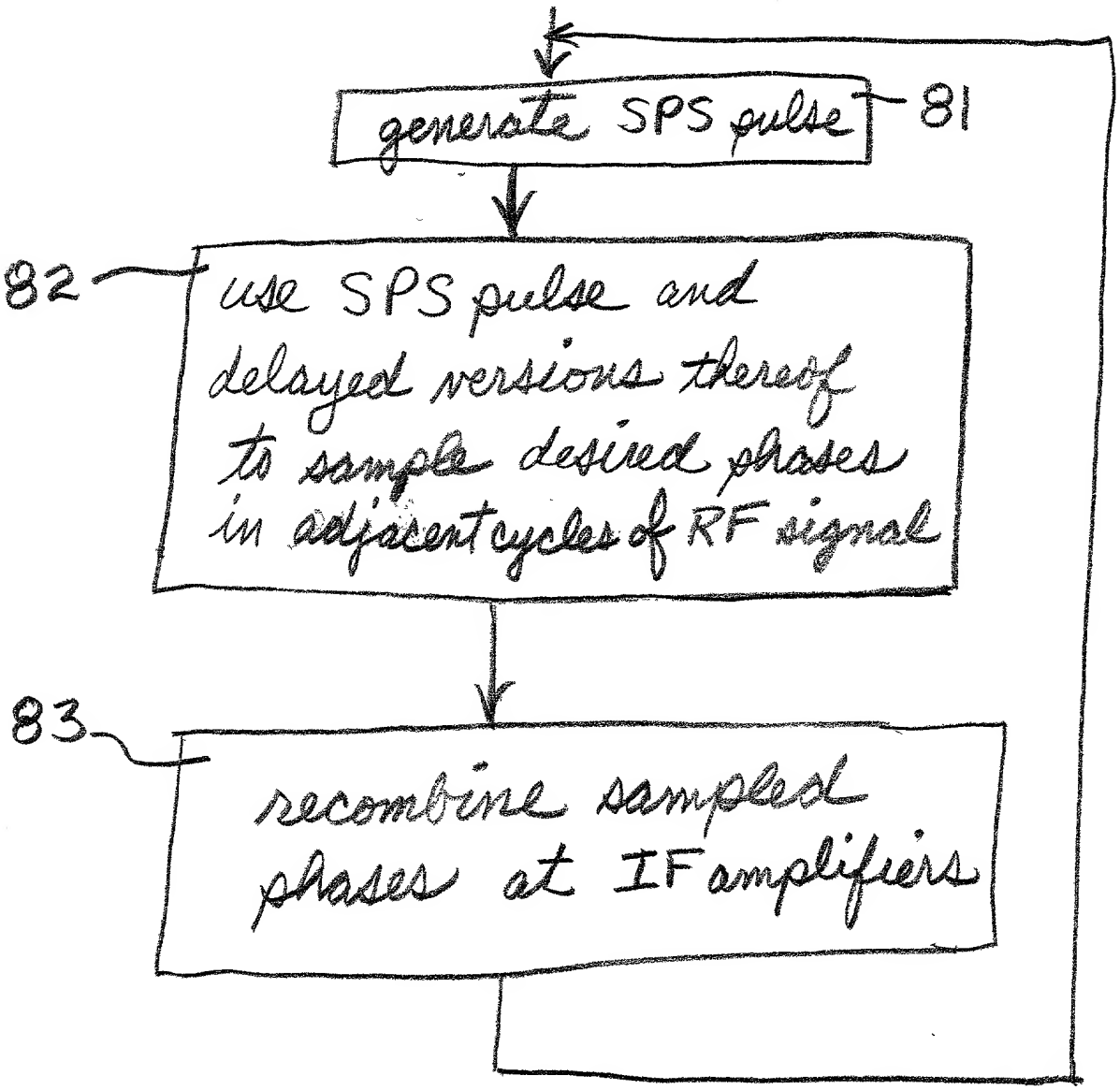

generate SPS pulse
81
82
use SPS pulse and delayed versions thereof to sample desired phases in adjacent cycles of RF signal
83
recombine sampled phases at IF amplifiers

FIG. 8

EP 0 390 110 A2

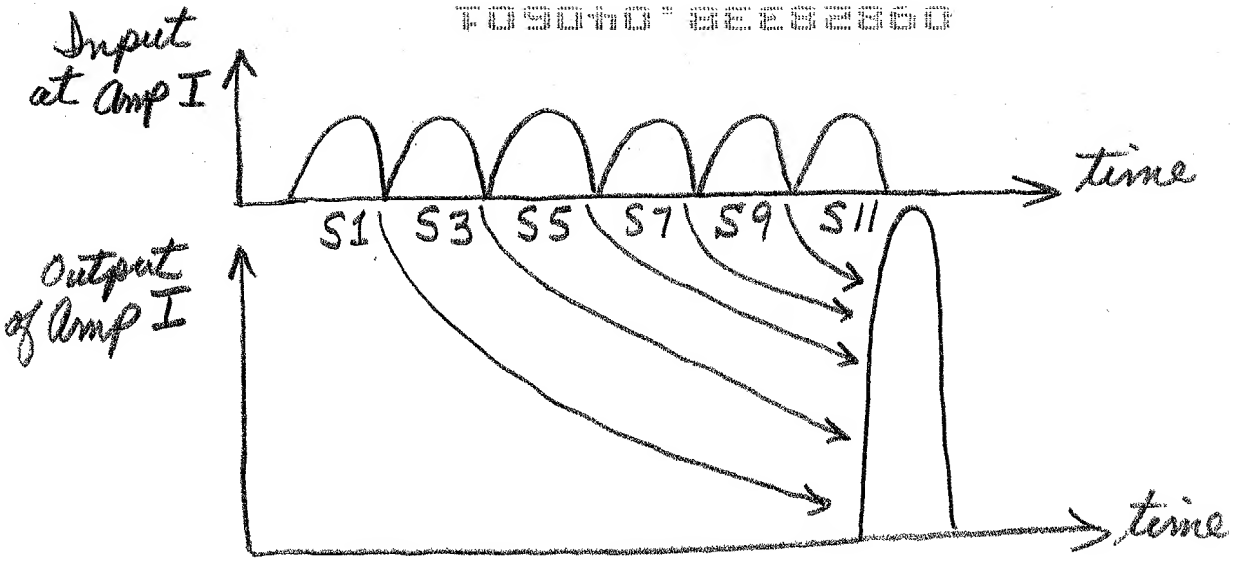


FIG. 9

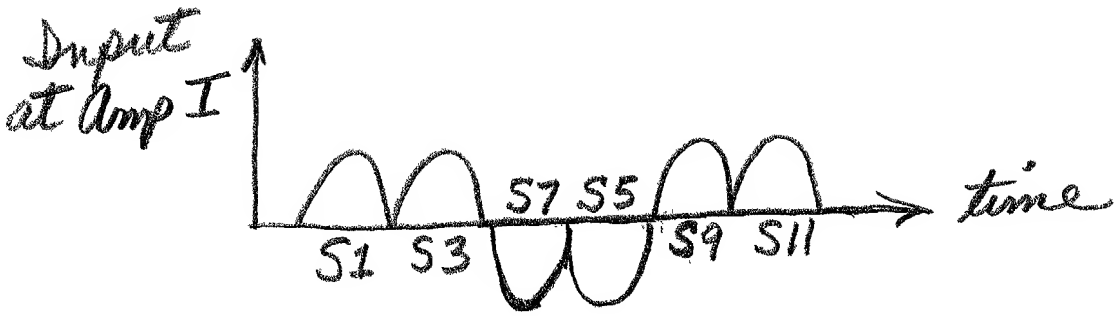


FIG. 10